A Palliative Approach: Stenting a Malignant Duodenocolonic Fistula in a Patient with Two Primary Malignancies

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Introduction

- Duodenocolonic fistulas can be complications of malignancy
- Management can be challenging for non-surgical patients
- Our case highlights a palliative approach by duodenal stenting in a malignant duodenocolonic fistula

Case Description

73yo male with Diabetes Mellitus present with a one-week history of hematochezia

- Patient with associated epigastric pain
- Vitals were stable and bright red blood on rectal exam
- Labs: calcium 7 mg/dL, magnesium 1.2 mg/dL, and hemoglobin 9.8 gm/dL
- Computed tomography (CT) imaging with a pulmonary mass and a duodenocolonic fistula

Upper GI Endoscopy:

- 10 millimeter (mm) fistula in the first and second portion of the duodenum with opening into the right side of the colon
- An infiltrative mass past the duodenal bulb with biopsy positive for invasive adenocarcinoma
- A 20mm x 120mm covered metal luminal stent placed under fluoroscopy with the proximal flange in the antrum of the stomach and distal flange in the second part of the duodenum bridging the fistula
- The stent was anchored proximally by the endoscopic placement of two interrupted 2.0 polypropylene sutures to prevent distal migration
- Fluoroscopy with no contrast extravasation
- Interval imaging three weeks post-procedure revealed a second primary lung malignancy
- The patient had improved abdominal pain and tolerating full liquid diet 1 month following procedure

Duodenocolonic Fistula

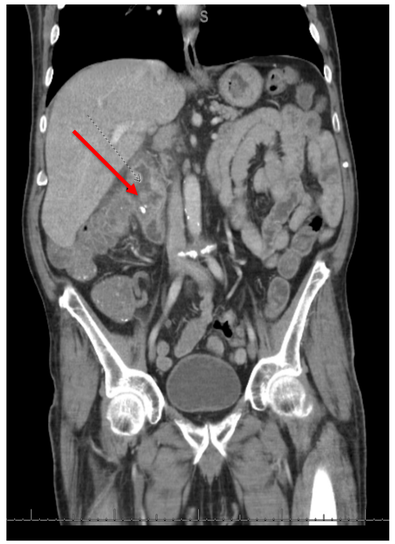

Figure 1:
Duodenocolonic fistula (red arrow) in the second part of the duodenum with duodenal wall thickening and mesenteric inflammatory stranding.

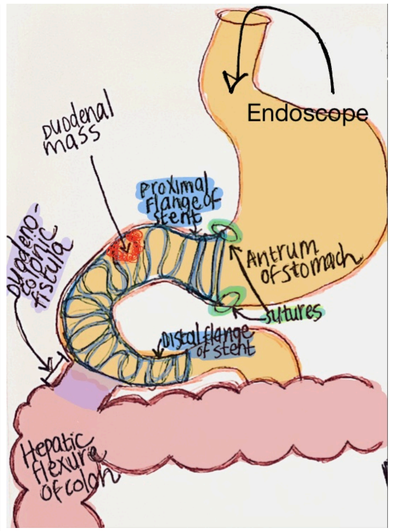

Figure 2:
Anatomy of stent placement position
-Proximal flange: stomach antrum
-Distal flange: 2nd part of duodenum

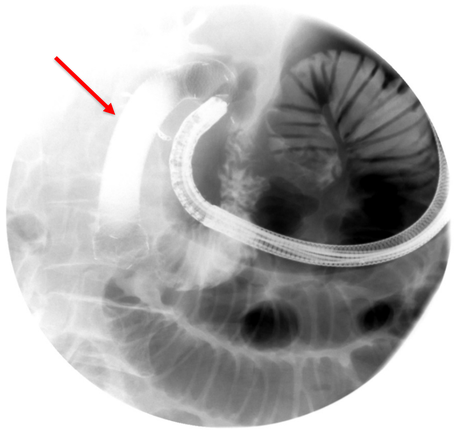

Figure 3:
Fluoroscopy with contract injected into the stomach and duodenum showed no extravasation of dye with good flow into the proximal jejunum.

Discussion

Key Points:

- An endoscopic approach to stenting a malignant duodenocolonic fistula
- An endoscopic palliative method in providing symptom relief and insuring enteral nutrition in patients with a limited life expectancy.

Alternative Therapies:

- Treatment for malignant duodenocolonic fistulas can include surgery, however parental nutrition is usually required with the risk of post-operative complications
- Alternative endoscopic approaches including using through the scope or over the scope clips for enteral fistula closure has a higher likelihood of dislodging and failure given their smaller size relative to the fistula
- Other techniques including endoscopic suturing would not be ideal given the friability associated with the tumor causing the sutures to fail and dehisce
- A covered duodenal stent placed across the fistula allowed for a less invasive method to relieve debilitating vomiting and abdominal pain.

References

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